

(5) costs faced by United States businesses engaging in innovation compared to foreign competitors, including the burden placed on businesses by high and rising health care costs;

(6) means by which industry, trade associations, and universities could collaborate to support research on management practices and methodologies for assessing the value and risks of longer term innovation strategies;

(7) means to encourage new, open, and collaborative dialogue between industry associations, regulatory authorities, management, shareholders, labor, and other concerned interests to encourage appropriate approaches to innovation risk-taking;

(8) incentives to encourage participation among institutions of higher education, especially those in rural and underserved areas, to engage in innovation;

(9) relevant Federal regulations that may discourage or encourage innovation;

(10) all provisions of the Internal Revenue Code of 1986, including tax provisions, compliance costs, and reporting requirements, that discourage innovation;

(11) the extent to which Federal funding promotes or hinders innovation; and

(12) the extent to which individuals are being equipped with the knowledge and skills necessary for success in the 21st century workforce, as measured by—

(A) elementary school and secondary school student academic achievement on the State academic assessments required under section 1111(b)(3) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311 (b)(3)), especially in mathematics, science, and reading, identified by ethnicity, race, and gender;

(B) the rate of student entrance into institutions of higher education, identified by ethnicity, race, and gender, by type of institution, and barriers to access to institutions of higher education;

(C) the rates of—

(i) students successfully completing postsecondary education programs, identified by ethnicity, race, and gender; and

(ii) certificates, associate degrees, and baccalaureate degrees awarded in the fields of science, technology, engineering, and mathematics, identified by ethnicity, race, and gender; and

(D) access to, and availability of, high quality job training programs.

(b) **REPORT REQUIRED.**—Not later than 1 year after entering into the contract required by subsection (a) and 4 years after entering into such contract, the National Academy of Sciences shall submit to Congress a report on the study conducted under such subsection.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Office of Science and Technology Policy \$1,000,000 for fiscal year 2008 for the purpose of carrying out the study required under this section.

#### **SEC. 1003. NATIONAL TECHNOLOGY AND INNOVATION MEDAL.**

Section 16 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3711) is amended—

(1) in the section heading, by striking “**NATIONAL MEDAL**” and inserting “**NATIONAL TECHNOLOGY AND INNOVATION MEDAL**”; and

(2) in subsection (a), by striking “Technology Medal” and inserting “Technology and Innovation Medal”.

#### **SEC. 1004. SEMIANNUAL SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS DAYS.**

It is the sense of Congress that the Director of the Office of Science and Technology Policy should—

(1) encourage all elementary and middle schools to observe a Science, Technology, Engineering, and Mathematics Day twice in every school year for the purpose of bringing in

science, technology, engineering, and mathematics mentors to provide hands-on lessons to excite and inspire students to pursue the science, technology, engineering, and mathematics fields (including continuing education and career paths);

(2) initiate a program, in consultation with Federal agencies and departments, to provide support systems, tools (from existing outreach offices), and mechanisms to allow and encourage Federal employees with scientific, technological, engineering, or mathematical responsibilities to reach out to local classrooms on such Science, Technology, Engineering, and Mathematics Days to instruct and inspire school children, focusing on real life science, technology, engineering, and mathematics-related applicable experiences along with hands-on demonstrations in order to demonstrate the advantages and direct applications of studying the science, technology, engineering, and mathematics fields; and

(3) promote Science, Technology, Engineering, and Mathematics Days involvement by private sector and institutions of higher education employees, including partnerships with scientific, engineering, and mathematical professional organizations representing individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b), in a manner similar to the Federal employee involvement described in paragraph (2).

#### **SEC. 1005. STUDY OF SERVICE SCIENCE.**

(a) **SENSE OF CONGRESS.**—It is the sense of Congress that, in order to strengthen the competitiveness of United States enterprises and institutions and to prepare the people of the United States for high-wage, high-skill employment, the Federal Government should better understand and respond strategically to the emerging management and learning discipline known as service science.

(b) **STUDY.**—Not later than 1 year after the date of the enactment of this Act, the Director of the Office of Science and Technology Policy shall, through the National Academy of Sciences, conduct a study and report to Congress on how the Federal Government should support, through research, education, and training, the emerging management and learning discipline known as service science.

(c) **OUTSIDE RESOURCES.**—In conducting the study under subsection (b), the National Academy of Sciences shall consult with leaders from 2- and 4-year institutions of higher education, as defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)), leaders from corporations, and other relevant parties.

(d) **SERVICE SCIENCE DEFINED.**—In this section, the term “service science” means curricula, training, and research programs that are designed to teach individuals to apply scientific, engineering, and management disciplines that integrate elements of computer science, operations research, industrial engineering, business strategy, management sciences, and social and legal sciences, in order to encourage innovation in how organizations create value for customers and shareholders that could not be achieved through such disciplines working in isolation.

#### **SEC. 1006. PRESIDENT'S COUNCIL ON INNOVATION AND COMPETITIVENESS.**

(a) **IN GENERAL.**—The President shall establish a President's Council on Innovation and Competitiveness.

(b) **DUTIES.**—The duties of the Council shall include—

(1) monitoring implementation of public laws and initiatives for promoting innovation, including policies related to research funding, taxation, immigration, trade, and education that are proposed in this Act or in any other Act;

(2) providing advice to the President with respect to global trends in competitiveness and innovation and allocation of Federal resources in education, job training, and technology research and development considering such global trends in competitiveness and innovation;

(3) in consultation with the Director of the Office of Management and Budget, developing a process for using metrics to assess the impact of existing and proposed policies and rules that affect innovation capabilities in the United States;

(4) identifying opportunities and making recommendations for the heads of executive agencies to improve innovation, monitoring, and reporting on the implementation of such recommendations;

(5) developing metrics for measuring the progress of the Federal Government with respect to improving conditions for innovation, including through talent development, investment, and infrastructure improvements; and

(6) submitting to the President and Congress an annual report on such progress.

(c) **MEMBERSHIP AND COORDINATION.**—

(1) **MEMBERSHIP.**—The Council shall be composed of the Secretary or head of each of the following:

(A) The Department of Commerce.

(B) The Department of Defense.

(C) The Department of Education.

(D) The Department of Energy.

(E) The Department of Health and Human Services.

(F) The Department of Homeland Security.

(G) The Department of Labor.

(H) The Department of the Treasury.

(I) The National Aeronautics and Space Administration.

(J) The Securities and Exchange Commission.

(K) The National Science Foundation.

(L) The Office of the United States Trade Representative.

(M) The Office of Management and Budget.

(N) The Office of Science and Technology Policy.

(O) The Environmental Protection Agency.

(P) The Small Business Administration.

(Q) Any other department or agency designated by the President.

(2) **CHAIRPERSON.**—The Secretary of Commerce shall serve as Chairperson of the Council.

(3) **COORDINATION.**—The Chairperson of the Council shall ensure appropriate coordination between the Council and the National Economic Council, the National Security Council, and the National Science and Technology Council.

(4) **MEETINGS.**—The Council shall meet on a semi-annual basis at the call of the Chairperson and the initial meeting of the Council shall occur not later than 6 months after the date of the enactment of this Act.

(d) **DEVELOPMENT OF INNOVATION AGENDA.**—

(1) **IN GENERAL.**—The Council shall develop a comprehensive agenda for strengthening the innovation and competitiveness capabilities of the Federal Government, State governments, academia, and the private sector in the United States.

(2) **CONTENTS.**—The comprehensive agenda required by paragraph (1) shall include the following:

(A) An assessment of current strengths and weaknesses of the United States investment in research and development.

(B) Recommendations for addressing weaknesses and maintaining the United States as a world leader in research and development and technological innovation, including strategies for increasing the participation of individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b) in science, technology, engineering, and mathematics fields.

(C) Recommendations for strengthening the innovation and competitiveness capabilities of the Federal Government, State governments, academia, and the private sector in the United States.

(3) **ADVISORS.**—

(A) **RECOMMENDATION.**—Not later than 30 days after the date of the enactment of this Act, the National Academy of Sciences, in consultation with the National Academy of Engineering, the Institute of Medicine, and the National Research Council, shall develop and submit to the